

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	BECKER, Guido) Group Art Unit: 2612
)
Serial No.:	10/564,607) Examiner: SHERWIN, Ryan W.
)
Filed:	05 June 2006) Confirmation No. 3237
For:	SEAT-BELT WARNING DEVICE	

APPEAL BRIEF UNDER 37 C.F.R. §41.37

I. THE REAL PARTY IN INTEREST

The real party in interest in this appeal is IEE INTERNATIONAL ELECTRONICS & ENGINEERING S.A. Ownership by IEE INTERNATIONAL ELECTRONICS & ENGINEERING S.A. is established by an assignment document recorded for this Application on June 5, 2006 at Reel 017958 and Frame 0611.

II. RELATED APPEALS AND INTERFERENCES

None.

III. STATUS OF CLAIMS

Currently, claims 1 and 3-7 are currently pending. Claims 1 and 3-7 are currently rejected, and the rejections of claims 1 and 3-7 are respectfully appealed in this Brief.

IV. STATUS OF AMENDMENTS

There have been no amendments filed subsequent to receipt of the Advisory Action dated November 19, 2009.

V. SUMMARY OF CLAIMED SUBJECT MATTER

A concise explanation of the subject matter defined in the independent claim (claim 1) in the appeal is provided below:

Claim 1

Independent claim 1 claims a “A seat-belt warning device.”

The seat-belt warning device is recited as comprising, “a device for sensing a seat occupancy by a passenger.” Referring to Paragraph 0007 of the related Publication No. 2007/0085669 (“Publication” hereinafter), a device for sensing whether a seat is occupied by a passenger is described. This device will be described in greater detail with reference to optical imaging system discussed below.

The seat-belt warning device is also recited as comprising, “a device for sensing a buckling status of a seat belt associated with the seat.” Referring to Paragraph 0016 of the Publication, a device for sensing whether the seat belt has been put on is described. The subsequent paragraphs describe some of the exemplary embodiments of this device, as well as a potential relationship with the device for sensing a seat occupancy.

The seat-belt warning device is further recited as comprising an “a device for outputting a warning signal.” Referring to Paragraph 0013 of the Publication, a device for outputting a warning signal in order to output a visual and/or audible warning signal to the driver and/or the passenger is described.

The seat-belt warning device is still further includes the element, “wherein said device for sensing a seat occupancy by a passenger comprises an optical imaging system for recording situation images and an image evaluation unit for evaluating the situation images which have been recorded.” Referring to Paragraph 0026 and Figures 1 and 2 of the Publication, an optical

system or camera 12 is described. At paragraph 0016, situation images which are recorded by the camera are also described.

The seat-belt warning device is additionally includes the element, “wherein said image evaluation unit evaluates a situation image, which has been recorded by the imaging system, on the basis of contours and/or edges contained in said situation image.” Referring to Paragraph 0014 of the Publication, an image evaluation unit that evaluates a situation image which has been recorded by the imaging system using the contours and/or edges contained in said image is described.

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

There is a single rejection to be reviewed on appeal: the rejection of claims 1 and 3-7 under 35 U.S.C. § 103(a) as being unpatentable over Mahbub (US 6,961,443) in view of Okada et al. (US 6,239,695).

VII. ARGUMENT

A. REJECTION OF CLAIMS 1 AND 3-7

Claims 1 and 3-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Mahbub in view of Okada.

To establish a *prima facie* obviousness under 35 U.S.C. § 103(a), three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Appellant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Appellant's claim 1 recites inter alia:

“wherein said image evaluation unit evaluates a situation image, which has been recorded by the imaging system, on the basis of contours and/or edges contained in said situation image”

Neither Mahbub nor Okada, taken alone or in combination, teach evaluation of a recorded situation image on the basis of contours and/or edges contained in the recorded image. At page 5 of the Office Action the Examiner references text that begins at column 10 of Mahbub as evidence that Mahbub teaches 2D analysis of images. While Appellant acknowledges that 2D images are discussed at this passage of Mahbub, Appellant respectfully traverses the Examiner's apparent allegation that these 2D images are contained in a recorded image such as that required by Appellant's claim 1.

In fact Mahbub clearly states in column 10, lines 49-51, that the 2D features are calculated on the three projections of the ROI in order to provide substantial shape information. The Mahbub teachings go on to describe several "Moments" to be calculated from the projections, which are clearly indicated as shape descriptors (col. 10, lines 56-57, col. 11, lines 6-7, lines 18-20 etc.).

It respectfully follows that the 2D features disclosed by Mahbub are calculated from projections of the recorded images *as opposed to the recorded images themselves*, and clearly relate to the description of the 3D shape of the objects detected in the scene. Once the objects are classified by the method disclosed by Mahbub, there is no need for further evaluation based on any contours and edges contained in the recorded image. Hence, it is respectfully asserted that Mahbub actually teaches identification of features based on 3D shape (please see Appellant's Response of May 26, 2009), and thus teaches away from evaluating "a situation image on the basis of contours and/or edges contained in said image" as is required by the current claim 1.

Appellant respectfully points out that Okada is merely used by the Examiner to teach a warning device, and therefore does not remedy the above discussed deficiency of Mahbub.

For at least the reasons discussed above, Appellant respectfully asserts that the proposed combination of Mahbub and Okada does not teach or suggest all of the limitations of Appellant's claims 1 and 3-7. Accordingly, Appellant respectfully submits that *prima facie* obviousness does not exist regarding claims 1 and 3-7 with respect to the proposed combination of Mahbub and Okada.

VIII. CLAIMS APPENDIX

1. A seat-belt warning device comprising
a device for sensing a seat occupancy by a passenger,
a device for sensing a buckling status of a seat belt associated with the seat, and
a device for outputting a warning signal,
wherein said device for sensing a seat occupancy by a passenger comprises an optical
imaging system for recording situation images and an image evaluation unit for
evaluating the situation images which have been recorded,
wherein said image evaluation unit evaluates a situation image, which has been
recorded by the imaging system, on the basis of contours and/or edges contained in said
situation image.
2. (Cancelled)
3. The seat-belt warning device as claimed in claim 1, wherein the imaging system
comprises a complementary metal-oxide-semiconductor, CMOS, camera and/or a
charge-coupled device, CCD, camera.
4. The seat-belt warning device as claimed in claim 1, wherein the device for sensing a
buckling status of a seat belt comprises a belt lock sensor.
5. The seat-belt warning device as claimed in claim 1, wherein the device for sensing a
buckling status of a seat belt is formed by the optical imaging system.
6. The seat-belt warning device as claimed in claim 5, wherein the seat belt has one or
more markings which are detectable by the optical system.

7. The seat-belt warning device as claimed in claim 1, wherein the optical imaging system comprises a lighting device for illuminating the space which is to be monitored.
8. (Cancelled)

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.

XI. CONCLUSION

For the reasons cited above, Appellants respectfully submit that the outstanding rejections are improper and requests reversal thereof. The Office is invited to contact Appellants' attorney at the below-listed telephone number regarding this Appeal Brief or otherwise concerning the present application for patent. Appellants hereby petition under 37 C.F.R. §1.136 and/or §1.137 for any extension of time necessary for entry and consideration of this Appeal Brief. If there are any additional charges with respect to this Appeal Brief, or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Appellants' attorneys.

Respectfully submitted,

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